

Applicants : Nigel Paul Maynard
Serial No. : 10/580,160
Filed : May 19, 2006
Page : 6 of 9

Attorney Docket No.: 65501-003US1
Client Ref. No.: SHR 504620USPR

REMARKS

The present application is submitted in reply to the Office Action dated June 16, 2009 (“Office Action”).

Initially, Applicants would like to thank the Examiner for conducting a telephone interview with Applicants’ counsel on September 3, 2009 to discuss this case. A summary of the interview is provided below.

Applicants have amended claims 1, 22, and 23 to more specifically point out the subject matter they deem as their invention. **This amendment should be entered as it raises no new issues that will require further consideration or search and also does not touch the merits of the application within the meaning of 37 C.F.R. § 1.116(b).**

More specifically, the phrase “having a pressure above atmospheric” incorporated into these claims is a limitation of original claim 4, which has already been considered by the Examiner.

Further, Applicants have amended claim 22 to promote clarity and cancelled claims 4, 8, 24, 25, and 27-30.

Upon entry of the above-proposed amendments, claims 1-3, 5-7, 9-12, 14-23 will be pending and under examination. Note that claims 13 and 26 were previously cancelled.

Interview Summary

During the interview, Applicants’ counsel pointed out that the claimed invention requires a rapid pressure reduction process and that this process distinguishes it from Sato et al., a cited reference, which teaches a smooth pressure reduction process. The Examiner disagreed.

Rejection under 35 U.S.C. § 102

Claims 24, 25, and 27-30 are rejected as being anticipated by Sato et al., US Patent 5,245,154 (“Sato”). Applicants have cancelled these claims, rendering the rejection moot.

Applicants : Nigel Paul Maynard
Serial No. : 10/580,160
Filed : May 19, 2006
Page : 7 of 9

Attorney Docket No.: 65501-003US1
Client Ref. No.: SHR 504620USPR

Rejection under 35 U.S.C. § 103

Claims 1-12, 14-25, and 27-30 are rejected for obviousness over Sato in view of Zottu, US Patent 3,496,645 (“Zottu”). Claims 24, 25, and 27-30 have been cancelled.

Claim 1, as amended, will be discussed first. This claim covers a method of conditioning a lingocellulosic substrate. The method includes a step of heating the lingocellulosic substrate by radio frequency (RF) energy in a constrained environment having an **above atmospheric** pressure.

Sato discloses a process of reforming or drying a wood material **without deformation**. See column 2, lines 19-20. This process includes (i) placing a wood material injected with a solution containing a synthetic resin on a heating plate, which is located inside a closed container, and (ii) volatilizing the solvent in the solution by increasing the temperature of the heating plate “in the state of **pressure reduction or normal pressures**.” See column 2, lines 22-42, and column 9, lines 29-31. In other words, this reference teaches heating a wood material inside a constrained environment **below or at atmospheric pressure**. Sato further teaches that pressure reduction is essential to preventing wood deformation, a goal of the Sato method. More specifically, it points out that, at a **reduced pressure** (i.e., **below atmospheric pressure**), “the solvent of the injected solution can be volatized from the wood material smoothly and efficiently,” and, consequently, “the residual rate of the solvent can be reduced **without causing the deformation of the wood material such as cracks or wraps**.” See column 4, lines 60-67; emphases added. Clearly, this reference discourages a skilled person in the art to heat a wood material inside a closed container at an **above atmospheric pressure**, a limitation of amended claim 1, as doing so would destroy what the Sato method intends to achieve, i.e., **preventing deformation of the wood material**.

The law is well settled that “[i]f proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification.” See MPEP § 2143.01, citing *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984). Following the just-quoted case law, it would not have been obvious for a skilled artisan to modify the Sato

Applicants : Nigel Paul Maynard
Serial No. : 10/580,160
Filed : May 19, 2006
Page : 8 of 9

Attorney Docket No.: 65501-003US1
Client Ref. No.: SHR 504620USPR

method by replacing the condition of “**below or at atmospheric pressure**” with “**above atmospheric pressure**,” so as to arrive at the claimed method.

As correctly pointed out by the Examiner, Zottu discloses “heating the interior of the wood by RF to a temperature higher than the boiling of the moisture of the wood.” See the Office Action, page 3, second paragraph. This reference is silent as to the pressure condition employed in heating wood. It clearly does not provide any suggestion of modifying the Sato method in the manner described above to arrive at the method of amended claim 1.

For the reasons set forth above, amended claim 1 is not rendered obvious by Sato and Zottu. Nor are claims 2, 3, 5-7, 9-12, and 14-21, all of which depend from claim 1.

Amended claims 22 and 23, the other two independent claims, cover methods for conditioning a lignocellulosic substrate. Like amended claim 1, these two claims also include the limitation “**above atmospheric**.” For the same reasons, these two claims are also not obvious over Sato and Zottu.

CONCLUSION

In view of the above remarks, Applicants submit that the present application is now in condition for allowance. A favorable consideration is therefore respectfully solicited.

It is believed that all of the pending claims have been addressed. However, the absence of a reply to a specific rejection, issue or comment does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

The Petition for Extension of Time fee in the amount of \$ 245 is being paid concurrently herewith on the Electronic Filing System (EFS) by way of Deposit Account

Applicants : Nigel Paul Maynard
Serial No. : 10/580,160
Filed : May 19, 2006
Page : 9 of 9

Attorney Docket No.: 65501-003US1
Client Ref. No.: SHR 504620USPR

authorization. Please apply any charges to Deposit Account No. 50-4189, referencing
Attorney Docket No. 65501-003US1.

Respectfully submitted,

Date: 11/13/09


Y. Jenny Chen, Ph.D., J.D.
Attorney for Applicants
Reg. No. 55,055

Customer No. 69713
Occhiuti Rohlicek & Tsao LLP
10 Fawcett Street
Cambridge, MA 02138
Telephone: (617) 500-2511
Facsimile: (617) 500-2499
111572.doc